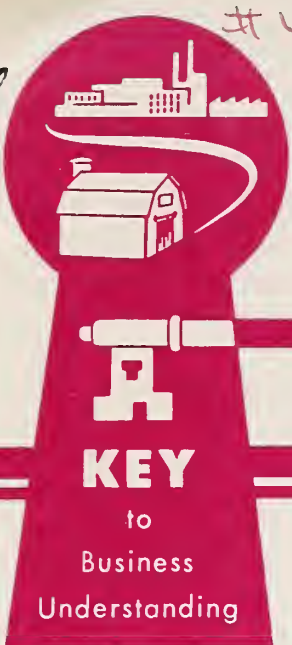


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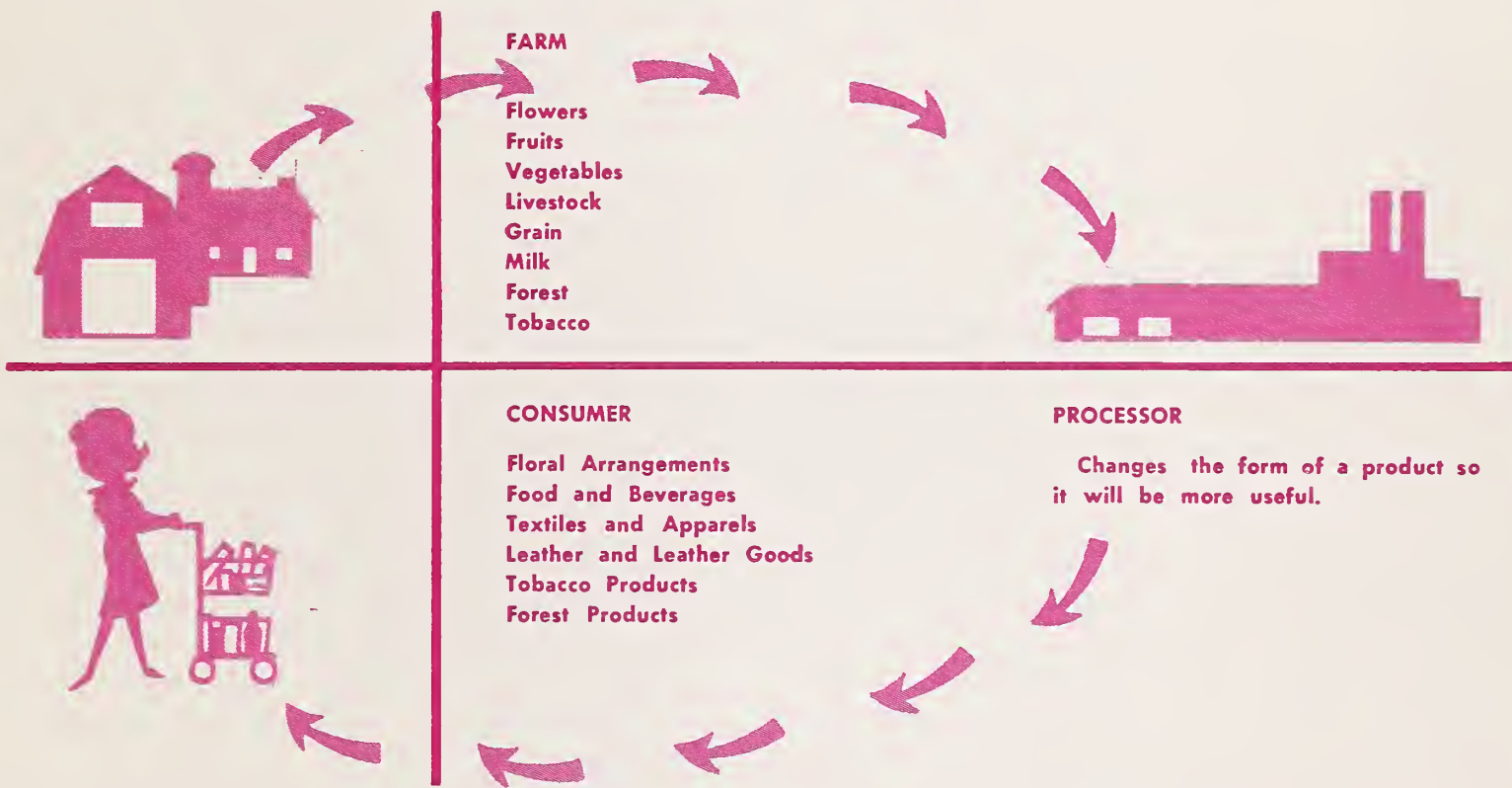
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BUSINESS PROGRAM

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PROCESSING IMPROVES LIVING

PURPOSE: To learn about processing and its importance to agriculture and the marketing of farm products and to consider the influence of size of business in the processing industry.



YOU live better today, thanks to cooks that you never see. These cooks are among the nearly 5,000,000 men and women who work at processing the food and fiber from American farms. The men and women in processing industries make it possible for you to eat peaches in January or have fried shrimp 1000 miles from the ocean. They help clothe you from the soles of your shoes to your hat. They lend a hand in housing you, providing recreation for you, making transportation possible for you.

While agricultural processing has become in recent times a modern, fast-moving, and indispensable industry, the idea is almost as old as mankind itself. Cave-man paintings show the ancient processors smoking meat. Fruit juices were available the year 'round in Biblical times because someone found that fermentation was a useful process for preservation.

In our own nation's beginning, most of the processing was done at home. Wood was cut; wool was spun; meat was cured; bread was baked. It has been

said that bread is the staff of life; we must recognize that processing made it possible.

Reference is often made to the food processing field, but remember that the processing of cotton, wool, leather goods, tobacco, and even forest products is important also in marketing.

Nearly all agricultural processing today is done in plants designed for efficiency, uniformity, quality, cleanliness, convenience, and customer appeal. For this reason, today's processed foods are excellent in taste and nutrition. Cotton and wool textiles today are superior to the hand-woven ones of the past century and much less labor is required to produce them.

Most potatoes come to market after a bath. They are tubbed, rubbed, scrubbed, and some of them are even waxed or dyed. This simple, important process was devised to meet the wants of some consumers. Often, a new process starts as a "want" of the consumer or a result of product development, but it becomes such a part of living that it soon appears to be a "need." Frozen foods and prepared cake mixes are examples of processed foods which only recently have become "needs" for many consumers. Most of us will readily agree that, as consumers, we really need processing to feel better and enjoy life more fully.

Processing Adds to Costs

Like all other marketing functions, processing costs money. It is another expense which occurs between the farmer and consumer, making a wider spread between the retail price and the prices received by farmers. Of course, not all of the added expense for processing represents profits to the firm doing the job. The biggest share of the cost is in wages and salaries. Another part pays the rent, heat, light, supplies, insurance, and other operating expenses. All firms pay local, state, and federal taxes. In addition, most companies make contributions to Social Security payments.

While processing does involve additional expense, some processing actually reduces the retail cost of food. In some cases, reduced waste, spoilage, and shipment of a much less bulky product offsets the extra cost of processing. Shipping topped carrots in cellophane bags from California to New York City is less expensive per carrot than shipping them bunched with the tops on. Here the savings in shipping costs help offset the cost of processing.

Improved processing methods often have increased the demand for agricultural products. Since 1930 the production of citrus fruit has about doubled. However, improved canning and freezing have stimulated the demand for citrus products.

Processing Can Save Time and Money

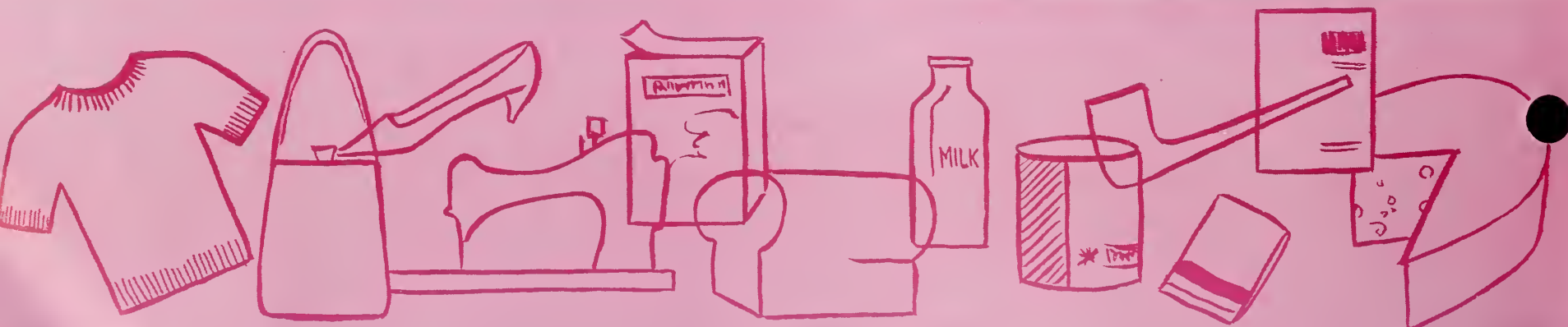
One of the most obvious results of the trend toward commercial processing is the new leisure provided most of our people. A unit of food can be processed in much less time in a specialized factory than in the home kitchen. Take the cake mix. By the use of machinery and manufacturing skills, a cake can be mixed with fewer manhours of labor in the plant than in the home. The time originally utilized in mixing the cake in the kitchen has been relegated to the factory, and the total time involved has been reduced.

Now the hours once used for mixing a cake, canning, peeling, drying, washing, curing, stirring, and other operations can be devoted to other activities. Because of this saving of time in doing household duties, more women today work away from home to increase family income. Others spend more time in supervising children, and of course, most people today have more leisure for doing just what they please.

Processed foods save storage space, too. Space can be considered an important cost item both in the modern home and in business. In a restaurant, for example, potatoes now are stored conveniently on shelves in the form of dried flakes. Space originally used for potato bins can be used now for table and counter space which helps increase income. In addition, the whole operation is cleaner than before, and labor and equipment costs are reduced.

Storage space in the home can be smaller also because of the compact, convenient nature of processed foods.

The agricultural processing industries are found at nearly every crossroad of the nation. They are the familiar cotton gins and textile plants, milk processing plants, canners, meat packers, freezing plants, saw mills and flour mills, and hundreds of others. They are important to farmers and consumers, since nearly all farm products must be processed before they are sold at retail.



Processing Firms Vary in Size

In the processing industries you will find a hundred thousand enterprises of all sizes. The range from the family-owned business to the large corporation with thousands of stockholders. Among the biggest firms are those that process many kinds of products and market them through their own vast distribution systems. These firms operate on national and even international markets. They are the well-known "national brand" companies.

In addition to the national brand firms, there are hundreds of other companies processing agricultural commodities. These companies have a smaller "family" of products than the national firms. Their distribution areas usually cover a few states or smaller geographic territories.

Because of the tremendous investment required for the highly mechanized processing of agricultural products, most of the processing firms are either corporations or large producer cooperatives.

While large corporate firms usually dominate many agricultural processing industries, cooperatives have made substantial progress.

About three-fifths of the butter, one-fourth of the natural cheese, and three-fourths of the nonfat dry milk solids are produced by 1800 dairy cooperatives. Nearly one-fifth of the fruit processed in the country is handled by firms organized as farmer cooperatives. Cooperatives are important also in sugar, soybean, cottonseed, tung, and rice milling.

In visiting some agricultural processing firms most people are amazed by the bigness of the enterprise. The growth in many of these firms has occurred within the last 25 years. They grew from small businesses to large ones because a large plant usually can lower cost proportionately more than a small one. Large plants can use expensive, labor-saving equipment which the output of the smaller one cannot support. The large plant can afford to employ such specialized experts as engineers, bacteriologists, and chemists. They can set up laboratories for experimentation and to conduct research in developing new, improved products.

The meat-packing industry is a good example of how and why little firms grow into big ones. At one time all meat was processed in small slaughterhouses which serviced local markets. Under these conditions

much of the animal was wasted. Parts, such as hair, bones, blood, and other inedibles, were destroyed. As the plants increased in size, there was enough volume of hundreds of these animal by-products so they could be converted into glue, fertilizer, animal feeds, vitamins, and scores of other products. The sale of these by-products of the packing houses now represents a sizable portion of the income to the processing business.

Integration

Many of the majors in today's processing industries have become large and powerful through integration or combination. This growth involved the combining of business units under one financial control. Even today mergers and acquisitions occur, so firms can take advantage of being bigger.

Combinations like these occur in two different ways: vertical combination (or integration) and horizontal combination (or integration).

Vertical combination occurs when firms operating various stages of processing combine for manufacturing and selling a commodity. Thus, when a broiler processor combines with a hatchery, you have vertical combination.

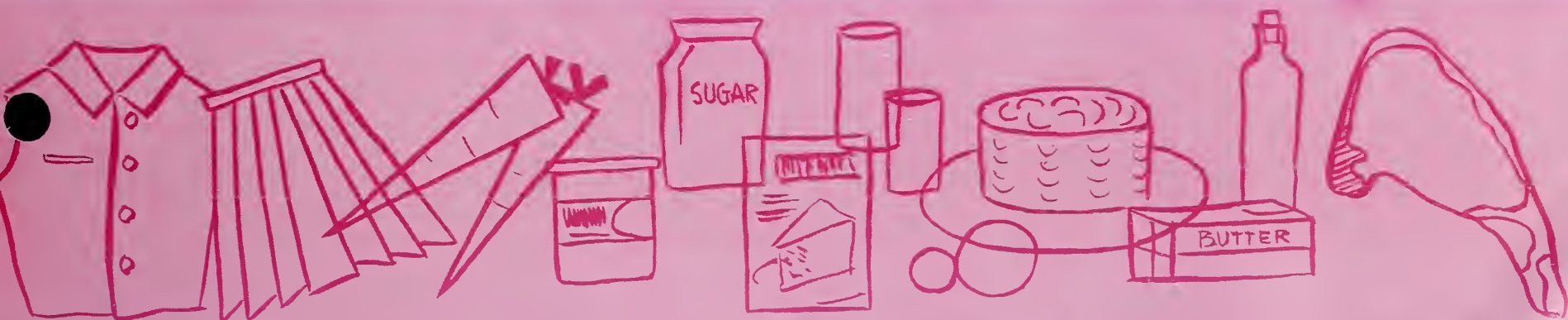
On the other hand, when a dairy corporation has grown through the acquisition of a number of smaller, but similar dairy companies, you have an example of horizontal combination.

When a chain store system acquires a bakery, it illustrates *vertical combination*. When it grows by adding more stores in various places, it is *horizontal combination*.

Medium-sized and small firms still play an important role in the processing industry. Cheese plants, canneries, poultry dressing plants, and saw mills often are small operations. They can be relatively small, because they require simple machinery and a comparatively small investment.

A corn refinery must be several hundred times larger than a cheese plant, because the equipment needed to process corn into starch, oil, syrup, and feed is both complex and expensive. As a result there are few corn-processing plants in the nation, but they are usually big.

Small processing firms in some industries are able to compete with the majors by taking advantage of



market and business conditions. This fact is especially noticeable among meat packers, bakeries, and feed mills. They provide special services and specialty products not available from the big producer. The smaller size gives the management of the firm ability to shift quickly from one type of operation to another.

Agricultural processing plants have problems peculiar to the nature of the farm products they handle. Some products are bulky and perishable, so location of a plant is extremely important to success. Most raw materials used by agricultural processing firms are subject to drastic changes in supply and quality, because weather often dictates yield and quality of crops and livestock.

Transportation Influences Location

Transportation makes up a sizable part of the cost of marketing many farm products. In the processing industry a change in freight rates can upset what was originally an economical plant location. Take hog slaughter: most hogs are butchered in or near the Corn Belt, the heaviest hog-producing region of the nation. But, there are some large slaughter plants in Pennsylvania, New York, and New Jersey. These firms buy hogs in the Midwest, then truck them to their plants. You can see how an increase of freight rates would reduce the profits of the eastern slaughterhouses. It would increase the cost of procuring hogs. On the other hand, a reduction in freight rates would, in effect, lower their procurement costs and give them more advantage over competitors in the midwestern states.

Transportation costs of products are important in determining the location of processing plants. Milk is one of the most expensive products to transport; it spoils easily and has to be handled with extreme care. For this reason, milk plants are located usually near the producing area. Many fresh fruits and vegetables are in the same category as milk as far as hauling is concerned. Thus, canneries also are located near areas of production.

In contrast with milk, grains and cotton are stable and, although bulky, they can be hauled with comparative ease. Thus, feed mills and textile plants can be located far from the sources of production. It should be recognized that as transportation becomes more efficient, commodities can be hauled farther, and processing plants can be located at greater distances from the producing areas.

A great feed-milling center is located in Buffalo, New York, where the processing plants can take advantage of low-cost water transportation directly from the grain areas. Until recent years New England was the center of the textile industry. Changes in the labor situation have resulted in shifts to the southern states. Changes of this kind are continuing to influence the location of processing industries.

Within the agricultural processing industries are attractive and responsible positions for men and women who know agriculture, business, and economics. As processing grows to meet the needs of an expanding population, more people are needed to fill the great variety of jobs and perform the activities for feeding and clothing the nation.

